

NEW HAMPSHIRE, VERMONT, AND SOUTHERN MAINE INSECT LIST

PART I. BACKGROUND AND PROCEDURE; PRELIMINARY LISTING

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During the last 100 years, much has been written about the insect fauna of the local area covered by the Dartmouth College Museum. This area, comprising the Connecticut River Valley, Green Mountains, White Mountain National Forest, and the seashore area of York County, Maine and southern New Hampshire, has been collected by Scudder, Whitney, Slosson, Morrison, Gerould, Shaw, Ottolengui, Alexander, Bowditch, and many, many others. Most of this collecting activity has been in the White Mountains of New Hampshire, but the rest of the area has not been totally neglected.

Unfortunately, very few of the insects collected have been recorded in print, and most of those insects that have been recorded are scattered in several hundred articles in over 2,000 volumes printed during 100 years. Although insects of these areas have been included in the volumes of the State of Connecticut Geological and Natural History Survey series, and there are many records included in the out-of-print and obsolete series of New

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England insect lists published by the now defunct Boston Society of Natural History, there are very few state lists for the area, and all appear to be both out of date and out of print. There is, at this time, no available, current listing of all orders of insects, although a list of New Hampshire Odonata and a list of Maine Lepidoptera are being prepared.

Due mainly to the lack of comprehensive, up-to-date lists, the interest in entomological studies, especially by non-professionals, students and collectors, which should exist in this area is almost nonexistent. Here and there a few interested persons struggle to keep the fires of knowledge and accuracy burning, while the environmentalists and ecologists happily print and publish their articles and learned papers that are distinguished by ignorance of entomological knowledge and by lack of a realization of just how large a place the insects occupy in the environment. Who is to blame for this ignorance? We are! For, ignorant as they are, we are more ignorant. How little we really know, and that little scattered beyond the winds in seas of original documents that defy our best efforts to extract the information we need.

When the ecologist asks an entomologist for a list of New Hampshire insects, or asks for a list of the insects of a particular faunal zone, or requests information on the distribution of a non-economic insect, or asks what insects should be taken into account during a particular project or study, what helpful information can we give? What lists, books, pamphlets, guides, or studies, up-to-date, accurate, and in print, spring to mind? Here, in middle New England, none. We do not even have a bibliography that we could hand to him and say, "Here, read these 500 articles and you will know about five percent of what you want to know". If this is the case, and unfortunately it is, what can we do about it?

The answer is simple: we must thoroughly collect this area for five to ten years in order to get a population sample, establish a series of records for ranges and distributional data, and then publish a faunal listing based on the population sample collected.

Reality is not so simple. There is no money available for such a project, either from the state or Federal Governments, nor is any funding to be had from private foundations for what is essentially a "taxonomic" project. Mission oriented, original research projects,

with an "ecological" or "environmental" goal are now the "in" type of project. Basic and secondary research and publications, especially if they are concerned with taxonomic problems, are "out". The fact that is now being ignored, that without a solid taxonomic foundation to build upon any project is likely to be shot through and through with errors and misconceptions, probably will not become apparent until after some expensive ecological or environmental project brings on a disaster, after which it will be too late to do anything about it. Sorry about that, as they say in the Army!

Rather than yell and scream about a lack of funding that I can not do anything about, I am nonetheless undertaking a modest project to remedy, at least partially, our ignorance. This is being done with the help of many individuals, unpaid, of course, and with the backing of the staff and facilities of the Dartmouth College Museum. By historical accident, a very small sum of money, the Fall Entomological Fund, is available for such work. Part of this sum will be available for certain costs of the project, part will be spent for other purposes connected with entomology.

The initial stage of this project (designated Project ACREP, Accumulate, Collate, Report, Explain, Publish) is described here.

Project ACREP is a 20-year plan for compiling a Faunal List of the insects of the local area. The listing will give accurate nomenclature, according to the latest available catalogs and checklists, in an easy to follow checklist style. If a species is limited to a restricted environment, this will be indicated. Each species will have a reference to a particular determined specimen, preferably in the Dartmouth College Museum Collections, upon which the listing will be based. One or more references to the species in the previous literature will be included if available, and an adequate, but not comprehensive bibliography will be appended. Twenty years has been assigned to complete this project, time being added to make up for lack of funds and certain hard facts of life that will be brought out in later parts of this series.

It has been decided that the method of procedure will be as follows: 1) to go through the available literature on the subject page by page and transfer to 3 by 5 file cards those species previously recorded from the local area; 2) to compile, at the same

time, a bibliography file of articles, papers, and monographs checked; 3) to combine these in a "Preliminary Listing". This will be subproject (1); 4) to collect such specimens as time will allow and add them to the huge mass of undetermined material in the Dartmouth College Museum Collections. These specimens will be used to "prove" (i.e., validate), the species in the "Preliminary Listing" and add new species to the listing and card files. This will be subproject (2); 5) to accurately determine, with the help of experts in the various orders, the specimens in the Dartmouth College Museum Collections, and to assign reference numbers to each specimen. This will be subproject (3); 6) to transfer all available ecological and other information to the card file; 7) to arrange the card file in the sequence in which it is to appear in the final publication and type up copies by families or orders; 8) to send copies to the various specialists for comment and criticism. This will be subproject (4); 9) to take all comment and criticism and adopt such part of it as seems reasonable, rearranging the cards and information as may be necessary; 10) to type up the final publication. This will be subproject (5); 11) to offer the typescript to anyone who will reproduce it and distribute it, or cover the costs of my doing so myself.

Please note that the first three subprojects and parts of subproject (4) may be done concurrently.

The timeframe currently allotted is as follows: subproject (1), 3 years; (2) 5 years; (3) 10 years; (4) 1 year; (5) 1 year.

Subproject (1): Preliminary Listing

Dartmouth College has an excellent library, the Baker Library, covering general subjects, and a branch, the Dana Bio-Medical Library, which concerns us. The Dana Library contains a fair run of certain entomological serials and good runs of the general biological serials. Unfortunately, it contains very little 20th Century entomological literature other than serial publications. Certain entomological serials are not represented, such as the *Journal of the Lepidopterists' Society*, that have papers of interest dealing with the local insect fauna.

Presently, the Dana Library serials are being taken out at the rate of ten bound volumes per week to be checked for references.

These are transferred to file cards and the serials returned for another batch. In this manner, the *Transactions of the American Entomological Society*, complete, and the *Canadian Entomologist*, through volume 83, have been checked out. Giving up the last volumes of the *Canadian Entomologist* as a tough, unrewarding job that was best left till last, I am now on volume 16 of the *Entomological News*.

Also at the present time, the small amount of money available from the Fall Entomological Fund is being split 50-50 for upkeep of collections and for new or in print publications. Many of these publications contain useful references or will be used later for determination work under subproject (3).

So far about 5,000 species are referenced in the card files, a fairly good start.

While going through these publications, many type localities of "Mt. Washington, NH", "Wht. Mts., NH", "NH", "White Mts.", etc., have been recorded, showing that the bulk of the New Hampshire collecting has been centered in that region. Certain impressions gathered by a consecutive reading of the literature I have seen to date leads me to suspect that many later authors have copied this information as "gospel truth" when they have not had more recent specimens or records to go by. I am certain, but cannot at this time prove, that some of these type localities are cited in error, and the original specimens did not come from within 1,000 miles of New Hampshire.

Although these records of previous collections in our local area can by no means be fully trusted for accuracy, nonetheless, a general, overall idea of what areas have been ignored or which orders are underrepresented can be gained. Even though this "Preliminary Listing" is going to be defective, it will at least give us something from which to work. While on this subject, may I insert a request to the readers who may have separates containing local records, to please donate a copy to the Dartmouth College Museum Library? Thank you!

Having given an idea of Project ACREP, and how far it has progressed, this part of the series is finished. In Part II, I shall describe the Dartmouth College Museum Collections, and relate them to subprojects (2) and (3).